

IN THE DRAWINGS

The attached sheets of drawings includes changes to Figs. 1, 2a, 2b, 5a-5e, and 6. These sheets, which include Figs. 1, 2a, 2b, 4a, 4b, 5a-5e, and 6, replace the original sheet including Fig. 1, 2a, 2b, 4a, 4b, 5a-5e, and 6.

Attachment: Replacement Sheets

### **REMARKS/ARGUMENTS**

Favorable consideration of this application, as presently amended and in light of the following discussion, is respectfully requested.

Claims 1, 2, and 4-9 are presently pending in this application. Claims 1, 2, 4, and 5 are herein amended. Claim 3 is canceled. Claims 5-9 are added. Support for the amendment and added claims is found at least at Fig. 4 of the drawings and in the specification at paragraphs [0073] and [0083] to [0088], and in the original claims. No new matter is added.

In the outstanding Office Action, claim 3 was rejected under 35 U.S.C. §102(b) as anticipated by Horikawa (EP 449556). Claims 1 and 2 were rejected under 35 U.S.C. §103(a) as obvious over Sander (U.S. Publication 2002/0100994), in view of Horikawa. Claim 4 was rejected under 35 U.S.C. §103(a) as being unpatentable over McNeill (U.S. Patent No. 5,385,873). The drawings were objected to.

Claim 3 was rejected as anticipated by Horikawa. Applicants herewith cancel claim 3, rendering this rejection moot.

Claims 1 and 2 were rejected as obvious over Sander in view of Horikawa. Claim 1, from which claims 2 and 5-9 depend, is herein amended. As amended, claim 1 is directed to a method of manufacturing a honeycomb structural body having a sealing material layer formed on a peripheral portion of a pillar-shaped porous honeycomb member. The method includes preparing a pillar-shaped porous honeycomb member, and applying a paste-like sealing material onto the circumferential face of the pillar-shaped porous honeycomb member. The sealing material is a raw material of said sealing material layer. The method further includes fitting a plate-shaped and ring-shaped scraper to the pillar-shaped porous honeycomb member. The scraper is configured to be brought into contact with the circumferential face of the pillar-shaped porous honeycomb member so as to slide thereon. The method further includes moving the ring-shaped scraper in a length direction of the

pillar-shaped porous honeycomb member, thereby expanding the paste-like sealing material applied on to the circumferential face of said pillar-shaped porous honeycomb member so as to spread over the entire circumferential face of said pillar-shaped porous honeycomb member. Because claim 1 recites that the scraping is carried out using a plate-shaped and ring-shaped scraper, it is possible to form a sealing material layer on the circumferential face without irregularities and in a state that with very little slide resistance. This is desirable, as non-uniform slide speed during the scraper step results in irregularities of the sealing material layer that is formed. Thus, it is desirable that the slide resistance be minimized, allowing for uniform slide speed.

Sander differs from the claimed invention, at least in that Sander doesn't teach a method that includes a scraping using a plate-shaped and ring-shaped scraper. Sander discloses an apparatus that forms a sealing material layer using a calibrating ring configured to surround the circumferential face of a honeycomb structured body, depending on its circumferential shape. The calibrating ring is fixed and integrated with the extrusion chamber, which has a columnar shape. The face of the calibrating ring contacts and slides along the circumferential face of the honeycomb structured body. This results in a great deal of slide resistance. The excess slide resistance may result in a change in speed between the calibrating ring and the circumferential face of the honeycomb structured body. Accuracy of the circumferential face deteriorates as compared to the presently claimed method using the plate-shaped and ring-shaped scraper. Further, the Sander device requires a large force for pushing the honeycomb structured body. This requires increased energy consumption during manufacture of the honeycomb structured body. Finally, the Sander device, configured to surround the circumference of the honeycomb body, is not easily adapted to use with the manufacture of honeycomb structured bodies having differing shapes and sizes, if using a single apparatus. In contrast, it is quite easy to manufacture a plate-shaped and ring-shaped

scraper having a different shape. Also, since it is quite easy to exchange the scraper, the present invention can be successful upon production of honeycomb structured bodies of a wide variety of products in small quantities.

Sander doesn't teach a method using a plate-shaped and ring-shaped scraper, and Horikawa doesn't remedy the inadequacies of Sander. Indeed, Horikawa doesn't disclose or suggest anything about the details of a coating method of the coating material. Every word in a claim must be considered in determining the question of patentability against the prior art. *In re Wilson*, 424 F.2d 1382, 1385 (CCPA 1970). A claimed invention can only be found obvious if there is "some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness." *KSR Int'l v. Teleflex Inc.*, 127 S. Ct. 1727, 1741 (2007) (quoting *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006). Lacking disclosure of all of the elements, and providing no reasoning why one would be led to provide for the undisclosed elements, the combination of Sander and Horikawa cannot render claim 1, or any claim depending therefrom, obvious. Applicant respectfully requests withdrawal of these rejections. Moreover, Applicants note that added claims 5-9 include the limitations of claim 1, and are patentable over the cited references at least for the reasons discussed herein.

Claim 4 was rejected as obvious over McNeill. Claim 4 as amended is directed to a sealing material for forming a pillar-shaped porous honeycomb member. The sealing material comprises an inorganic filler and an inorganic binder. The inorganic filler has an aspect ratio in a range from 1.01 to 10.00. By adjusting the coating method and orienting the inorganic filler in the sealing material, it is possible to provide a sealing material layer having superior thermal conductivity in the oriented direction, and consequently to manufacture a honeycomb structural body that is less likely to generate cracks, and that has superior durability, as discussed in the specification at paragraph [0029].

McNeill simply discloses a solid, compressible, high temperature resistant material comprising ceramic fibers capable of withstanding continuous exposure to temperatures in excess of 2000°F. The McNeill material has a high aspect ratio vermiculite with an aspect ratio of at least approximately 10. In McNeill, ceramic fibers are bound together by the vermiculite to maintain the material in a substantially solid, compressible form. As admitted in the outstanding Office Action, McNeill is silent with regard to the aspect ratio of the inorganic filler. Instead, McNeill simply teaches that its material comprises ceramic fibers having relatively long fibers of relatively small diameter so that they are able to resiliently flex to absorb shocks applied to the seal. For this purpose, the ceramic fibers should have a significantly high aspect ratio. As noted in the present specification at paragraph [0043],

If the aspect ratio of the inorganic filler is desirably set in a range from 1.01 to 10.00, the sealing material is desirably designed so as not to contain inorganic fibers. This is because the inorganic fibers have such a great aspect ratio in a range from 10 to 10000 that the effects, obtained by containing inorganic particles having an aspect ratio in a range from 1.01 to 10.00, tend to be cancelled.

As noted, if the ceramic fibers have a significantly high aspect ratio, the effects of incorporating inorganic particles having an aspect ratio of from 1.01 to 10.00 tend to be negated. Teaching the incorporation of ceramic fibers having such high aspect ratio, McNeill actually teaches away from including inorganic particles with aspect ratios within the claimed range. Finally, McNeill does not teach anything with regard to the advantages of orienting the inorganic filler to provide a sealing material layer having superior thermal conductivity in the oriented direction. Because one skilled in the art would not be motivated to modify the McNeill material to reach the claimed product, claim 4 is not obvious over McNeill.

Applicant respectfully requests withdrawal of this rejection.

The drawings were objected to. In response, Applicant herewith submits corrected drawings.

In view of the amendments and discussions presented above, Applicants respectfully submit that the present application is in condition for allowance, and an early action favorable to that effect is earnestly solicited.

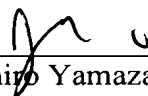
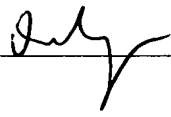
Respectfully submitted,

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